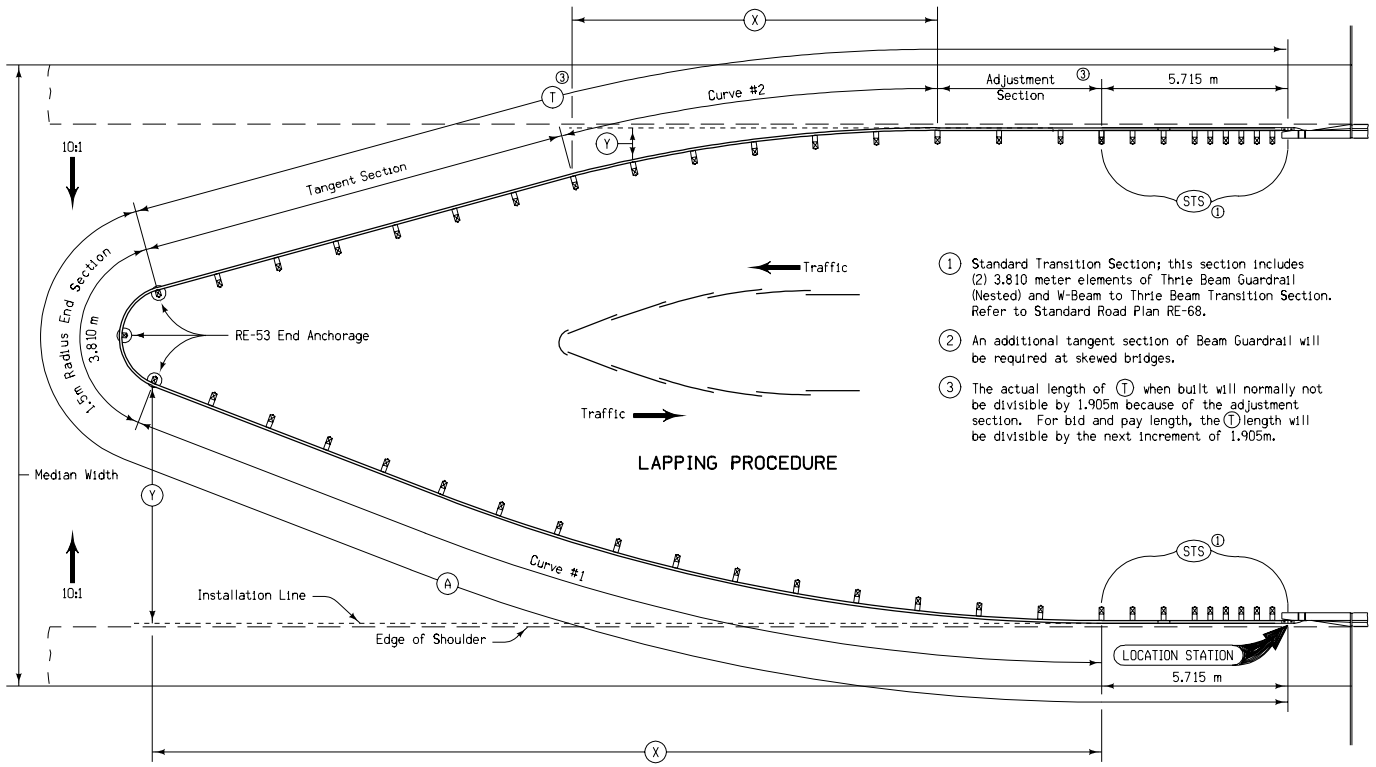


① Standard Transition Section; this section includes (2) 3.810 meter elements of Thrie Beam Guardrail (Nested) and W-Beam to Thrie Beam Transition Section. Refer to Standard Road Plan RE-68.

② An additional tangent section of Beam Guardrail will be required at skewed bridges.

③ The actual length of (T) when built will normally not be divisible by 1.905m because of the adjustment section. For bid and pay length, the (T) length will be divisible by the next increment of 1.905m.

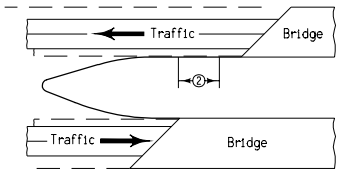
(X) Is the distance along the installation line (from the beginning of the curve to a post location).

(Y) Is the offset from installation line to face of rail.

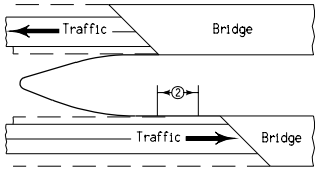
TRAILING SIDE CURVE OFFSETS (CURVE #2)

Dimensions in Meters

	45.720 Meter Radius							
Distance Along Curve	0.000	1.905	3.810	5.715	7.620	9.525	11.430	13.335
(X)	0.000	1.905	3.807	5.700	7.583	9.455	11.311	13.146
(Y)	0.000	0.040	0.158	0.357	0.634	0.988	1.420	1.929



APPROACH END AHEAD



APPROACH END BACK

SKEWED BRIDGES

APPROACH SIDE ALIGNMENT OFFSETS (CURVE #1)

Dimensions in Meters

	Parabolic Curve												Tangent Section									
Distance Along Curve	0.000	1.905	3.810	5.715	7.620	9.525	11.430	13.335	15.240	17.145	19.050	20.955	22.860	24.765	26.670	28.575	30.480	32.385	34.290	36.195	38.100
(X)	0.000	1.905	3.807	5.706	7.596	9.476	11.345	13.204	15.045	16.871	18.678	20.467	22.247	24.027	25.807	27.587	29.367	31.148	32.928	34.708	36.488
(Y)	0.000	0.034	0.134	0.305	0.539	0.838	1.201	1.628	2.112	2.655	3.255	3.908	4.587	5.267	5.947	6.626	7.306	7.986	8.665	9.345	10.025

For additional information, see Standard Road Plans, Detail Sheets and Typical Detail Drawings as follows: RE-27B, RE-53, RE-65, RE-68, RE-69A, RE-69B, RL-12.

GENERAL NOTES:

Details indicated hereon are for the installation of guardrail in medians between bridges. Refer to "Tabulation of Steel Beam Guardrail for Standard Road Plan RE–67" for complete data regarding specific locations.

Details shown are typical. Actual installation may require some adjustment when so directed by the Engineer.

Horizontal and vertical alignment of the guardrail in the area immediately adjacent to the bridge shall, where necessary, be adjusted to a smoothly curved line with no abrupt changes. Appropriate adjustment in method of installation shall be made for curved roadway, skewed bridges, or other conditions not shown.

Guardrail shall be lapped towards the structure.

Contract items for beam guardrail are:
Installation of Guardrail
(Bid Item Length = A+T③)
Beam Guardrail End Anchorage (RE–53)
Beam Guardrail End Anchorage (RE–69 or RE–27B)

INSTALLATION PROCEDURES:

1. Install 5.715 meter Standard Transition Section to each end post as detailed on Standard Road Plan RE–68.
2. Determine the length of Curve #1 from "Tabulation of Steel Beam Guardrail Between Dual Bridges." Stake and install guardrail based on table of "Approach Side Curve Offsets" as shown on this sheet.
3. Install the RE–53 end anchorage; Backside (3rd) post should not be installed until Steps 4 and 5 are completed to insure a smooth alignment.
4. Determine the maximum Y offset length for Curve #2 from the table of "Trailing Side Curve Offsets" on this sheet, based on curve length in the guardrail tabulation. Based on this offset and the Tangent Section length, located the intersection point of Curve #2 and the tangent section.
5. Maintaining normal post spacing from the RE–53 end anchorage, install guardrail to the point determined in Step 4. Install backside RE–53 post.
6. Using table of "Trailing Side Curve Offsets," Install Curve #2 guardrail and posts and any necessary adjustment section.

All dimensions given in millimeters unless noted.

M METRIC VERSION

Iowa Department of Transportation
Highway Division

STANDARD ROAD PLAN RE-67

REVISION: New bridge endpost and guardrail transition section. Change to 150 mm X 200 mm posts.	REVISION NO. 4
William J. Stein, APPROVED BY DESIGN METHODS ENGINEER	REVISION DATE 10-02-01

GUARDRAIL INSTALLATION BETWEEN DUAL BRIDGES (Case Y)